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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/617,751

07/14/2003

Jari Takala

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EXAMINER

EVANS, KIMBERLY L

ART UNIT

PAPER NUMBER

3629

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/617,751		TAKALA, JARI	
	<b>Examiner</b>		<b>Art Unit</b>	
	KIMBERLY EVANS		3629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 March 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4-9, 12-18, 21-23, 26-32 and 35-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4-9, 12-18, 21-23, 26-32, and 35-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. This action is in response to request for continued examination received March 25, 2009.
2. Claims 1, 4-9, 12-18, 21-23, 26-32, and 35-38 have been amended. Claims 2, 3, 10, 11, 19, 20, 24, 25, 33, and 34 have been cancelled.
3. Claims 1, 4-9, 12-18, 21-23, 26-32, and 35-38 are currently pending.
4. Claims 1, 4-9, 12-18, 21-23, 26-32, and 35-38 have been rejected.

***Continued Examination Under 37 CFR 1.114***

5. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 25, 2009 has been entered.

**Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
- Determining the scope and contents of the prior art.
  - Ascertaining the differences between the prior art and the claims at issue.
  - Resolving the level of ordinary skill in the pertinent art.
  - Considering objective evidence present in the application indicating obviousness or nonobviousness.
8. Claims 1, 4-9, 12-18, 21-23, 26-32, and 35-38 are rejected under 35 USC 103(a) as being unpatentable over Ephraim et al., US Patent Application Publication No US 2004/0077332 A1 in view of Raman et al., US Patent Application Publication No US 2004/0018829.
9. With respect to Claim 1, 9, 14, 16, 17, 23, 25, 28, 30, 32, 34, 37, and 38, Ephraim discloses the following limitations,
- *reserving resources from a prepayment system for prepaid data services* (see at least Abstract: "...A system (FIG. 1) and method for providing prepaid data transfer services to a subscriber (12) through a communication device, such as a wireless or wireline device..."), *the prepaid data services being divided into at least two service groups of different charging criteria in a network*(see at least paragraph 57: "...In this preferred embodiment, prepaid server 34 distributes tokens to both data monitor 38 and voice network 36, such that both types of services can optionally be operated on a prepaid basis. ..."), *wherein an initial data delivery limit is set for each service group based on the resources and information about the charging criteria* (see at least paragraph 29: "...A prepaid system monitors the data network in order to determine whether a particular requested data transfer service should be authorized, for example, according to the amount available in the account of the subscriber..")

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- *sending a message containing information about the initial data delivery limits from a rating device to a measuring device, wherein a proportional data delivery limits are limit is allocated for each service group individually;*(see at least paragraph 39: "...As shown, prepaid server 34 communicates with data monitor 38 (optionally through Data Payment Server 32) in order to be able to determine the type of data transfer services which are being provided from Internet 24 and/or another external network. Data monitor 38 monitors all data traffic from Internet 24 and/or another external network, and reports on a number of characteristics of such traffic to prepaid server 34...")
- *and the proportional data delivery limit for each service group is defined as a proportion of the initial data delivery limit for the respective service group,*( see at least paragraph 12: "...According to preferred embodiments of the present invention, the calculation of the debit is divided into two parts..."; see at least paragraph 52: "...Data monitor 38 is preferably responsible for finding the exact rule which matches the data being monitored, and then to calculate a charge for the data transfer..")

Ephraim does not distinctly disclose the following limitations, but Raman however as shown discloses,

- *wherein remaining resources to the service groups are reallocated based on a pricing weight of each of the service groups* (see at least paragraph 38: "...These unused credits may be returned to the cache of available credits or reallocated to the session activity on the second-network-access device or any other eligible session activity..."); *each pricing weight being defined for the respective service group as a proportion of a sum of the proportional data delivery limits to the initial data delivery limit of the service group* (see at least paragraph 28: "...While the credits in the received blocks remain above a predetermined threshold, the first-network-access device may continue to debit the session activity from the blocks of credits..."), *to obtain a new proportional data delivery limit for each service group individually,* (see at least paragraph 52: "...The network-access-control device retrieves from the first network-access device at least some of any remaining credits, then grants a new block of

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credits to the second network-access device...)the new proportional data delivery limits being for use in delivery of data after a service group has exceeded its proportional data delivery limit.(see at least paragraph 151: "...the first-network-access device 151 may make the request for additional credits when the no credits remain in the block. In another alternative, the first-network-access device 151 may make the request for additional credits based on an algorithm that insures that as long as available credits remain, it will receive additional blocks of credits...")

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the management of prepaid billing system for wireless communications with the system and method of Raman because it is an efficient means for supporting prepaid accounting and billing services that work correctly with mobile nodes on 3G networks.

10. With respect to Claim 4,

Ephraim and Raman disclose all of the above limitations, Ephraim further discloses, *comprising receiving a report from the measuring device at the rating device only after all of the reserved resources are used.* (see at least paragraph 15: "...The prepaid system preferably allows packets to be transferred between the wireless device and the data service provider (server) only if the subscriber's account balance is sufficient and/or if the packets are "free". Optionally and more preferably, the system notifies the subscriber when the subscriber's balance is low or exhausted, for example via an SMS message or an HDML message sent to the wireless device. Alternatively, the prepaid system can optionally notify the subscriber by sending a message containing a pointer (for example a "recharge URL") to a page that contains such a message...")

11. With respect to Claim 5, 13, 18, 22, 27, 29, and 36,

Ephraim, and Raman, disclose all of the above limitations, Ephraim further discloses,

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- *wherein the initial data delivery limit is defined as a volume equivalent to a same amount of money for each service group. (see at least paragraph 12: "...According to preferred embodiments of the present invention, the calculation of the debit is divided into two parts....")*

12. With respect to Claims 6, 7, and 15,

Ephraim, and Raman disclose all of the above limitations, Ephraim further discloses,

- *a prepayment system hosting prepaid resources; (see at least Abstract: "...A system (FIG. 1) and method for providing prepaid data transfer services to a subscriber (12) through a communication device, such as a wireless or wireline device...")*
- *a rating device configured to receive information of the prepaid resources and of charging criteria of service groups and to set initial data delivery limits for the service groups based on the received information; and;(see at least paragraph 39: "...As shown, prepaid server 34 communicates with data monitor 38 (optionally through Data Payment Server 32) in order to be able to determine the type of data transfer services which are being provided from Internet 24 and/or another external network. Data monitor 38 monitors all data traffic from Internet 24 and/or another external network, and reports on a number of characteristics of such traffic to prepaid server 34...")*
- *a measuring device configured to allocate a proportional data delivery limit for each service group individually, wherein each proportional data delivery limit is defined as a proportion of the initial data delivery limit for the respective service group,(see at least paragraph 65: "...the mechanism and/or system used can be as explained earlier but the amount measured and exchanged will be bytes or service data and not tokens or money. It should be further noted that in some cases the two unused amounts (i.e. data and time) can be returned to the prepaid system and the system will measure the minimum of the two options...")*

Ephraim does not distinctly disclose the following limitations, but Raman however as shown discloses,

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- *to measure use of each of the service groups, and to reallocate remaining free resources to the service groups based on a pricing weight of each of the service groups (see at least paragraph 38: "...These unused credits may be returned to the cache of available credits or reallocated to the session activity on the second-network-access device or any other eligible session activity...");, each pricing weight being defined for the respective service group as a proportion of a sum of the proportional data delivery limits to the initial data delivery limit of the service group, (see at least paragraph 52: "...The network-access-control device retrieves from the first network-access device at least some of any remaining credits, then grants a new block of credits to the second network-access device...") to obtain a new proportional data delivery limit for each service group individually for delivery of data when a one of the groups exceeds its proportional data delivery limit. (see at least paragraph 151: "...the first-network-access device 151 may make the request for additional credits when the no credits remain in the block. In another alternative, the first-network-access device 151 may make the request for additional credits based on an algorithm that insures that as long as available credits remain, it will receive additional blocks of credits...")*

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the management of prepaid billing system for wireless communications with the system and method of Raman because it is an efficient means for supporting prepaid accounting and billing services that work correctly with mobile nodes on 3G networks.

13. With respect to Claim 8,

Ephraim, and Raman disclose all of the above limitations, Ephraim further discloses,

- *wherein the at least one data communication network comprises a packet core communication network for communication of data between users and the measuring device and a public data network for communication of data between the measuring device and providers of the prepaid services.(see at least paragraph 11: "...the subscriber uses a wireless device, such as a cellular telephone for example, to access data services, such as*

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SMS or the Internet. The request for access is intercepted by the prepaid billing system of the present invention, which is preferably connected between the external network and a GGSN, or other gateway, which resides between the external network (such as the Internet) and the internal data network (such as an internal GPRS packet network)...")

14. With respect to Claims 12,

Ephraim, and Raman disclose all of the above limitations, Ephraim further discloses,

- *wherein the measuring device is further configured to send a report to the rating device only after all of the reserved resources are used.*(see at least paragraph 15: "...The prepaid system preferably allows packets to be transferred between the wireless device and the data service provider (server) only if the subscriber's account balance is sufficient and/or if the packets are "free". Optionally and more preferably, the system notifies the subscriber when the subscriber's balance is low or exhausted, for example via an SMS message or an HDML message sent to the wireless device. Alternatively, the prepaid system can optionally notify the subscriber by sending a message containing a pointer (for example a "recharge URL") to a page that contains such a message. ...")

15. With respect to Claim 21, 26, and 35,

Cucurull discloses the following limitations,

- *after all of the reserved resources are used, a report is sent from the apparatus to a rating device configured to obtain information of the prepaid resources* (see at least paragraph 39: "...Data monitor 38 monitors all data traffic from Internet 24 and/or another external network, and reports on a number of characteristics of such traffic to prepaid server 34. Such characteristics include, but are not limited to, the type of data being transferred and/or the type of data which is requested to be transferred, the amount of data being transferred and the identity of the subscriber (or wireless device 12) for which the data is being transferred..")

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- *and of the charging criteria of service groups and to set the initial data delivery limits for the service groups based on the obtained information.*(see at least paragraph 39: "...Music data might optionally be charged at a lower rate than other kinds of data packets. Packets with error messages might be free. Thus, data monitor 38 more preferably calculates the charge for the data transfer according to an arbitrary internal unit, which is described in greater detail below as a "token", which most preferably does not require any information about one or more characteristics of the subscriber...")

### **Response to Arguments**

16. Applicant's arguments received on November 19, 2008 have been fully considered but they are moot in view of the new ground(s) of rejection.
17. Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Kimberly L. Evans** whose telephone number is **571.270.3929**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **John Weiss** can be reached at **571.272.6812**.
18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free). Any response to this action should be mailed to: **Commissioner of**

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**Patents and Trademarks**, P.O. Box 1450, Alexandria, VA 22313-1450 or faxed to **571-273-8300**. Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window**: Randolph Building 401 Dulany Street, Alexandria, VA 22314.

/KIMBERLY EVANS/Examiner, Art Unit 3629

/JOHN G. WEISS/

Supervisory Patent Examiner, Art Unit 3629